

# DWR Climate News Digest

August 2018

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The information provided in the DWR Climate News Digest is a selected compilation of recent popular news articles, publications, and other information relevant to climate change and water management, and is intended to provide educational and thought-provoking material for water managers and water users.

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## TOPICS

### *Reports*

#### [California's Fourth Climate Change Assessment](#)

[State of California – August 27, 2018]

*"California's Fourth Climate Change Assessment (Fourth Assessment) advances actionable science that serves the growing needs of state and local-level decision-makers from a variety of sectors."*

### ***Agriculture/Food Production***

#### [In vicious cycle, warmer dirt makes climate change worse, study says](#)

[CBS News – August 1, 2018]

*"The dirt on the ground is making climate change worse, a new study finds. Plants capture massive amounts of carbon, pumping it into the soil, where usually it stays for hundreds or thousands of years."*

#### [The Very Hot, Very Hungry Caterpillar](#)

[The Atlantic – August 30, 2018]

*"Since the dawn of agriculture, humans have been unwillingly nourishing insects by growing plants that they then devour. Their mandibles consume somewhere between 10 and 20 percent of crops produced around the world. And these losses are likely to grow as the world slowly warms."*

### ***General Water Management***

#### [Hot Weather, Land Abuses Fueling Algal Blooms in Western Waters](#)

[Water Deeply – August 1, 2018]

*"Toxic bacteria produced by some algae are a threat to public health. Climate change may be one reason algal blooms have become a growing concern for many water agencies."*

[In a warming world, the fight for water can push nations apart—or bring them together](#)

[Quartz – August 16, 2018]

*“Border conflicts over water have been a feature of life on Earth for centuries. But climate change is upping the ante. Freshwater is running out faster in dry places, and conflict is filling that void.”*

### **Sea-Level Rise and other Ocean Impacts**

[Sea level to increase risk of deadly tsunamis](#)

[UPI – August 15, 2018]

*“New research suggests sea level rise caused by manmade global warming is likely to increase the risk of devastating tsunamis.”*

[What the Surging Glaciers of Svalbard Tell Us About the Future of Rising Seas](#)

[The Smithsonian – August 17, 2018]

*“Now, scientists are looking to surging glaciers as a glimpse into the future, as glaciers increasingly melt across the globe. Understanding the dynamics of what causes surges may help predict how large glaciers on Greenland and in the Antarctic, will behave and help scientists more accurately predict sea level rise. Why? The processes are similar.”*

### **Extreme Weather Events**

[As storms worsen, America's aging dams overflow](#)

[CBS News – August 7, 2018]

*“ASCE says that in just 10 years, the number of at-risk dams has grown from 10 percent to 17 percent. One reason: Many are earthen dams, and the aging and crumbling structures are barely holding back nearby lakes and rivers. But a new and growing problem is rainfall as global warming leads to more severe storms.”*

[Global warming can make extreme weather worse. Now scientists can say by how much.](#)

[NBC News – August 19, 2018]

*“Now, scientists say that they will increasingly be able to link extreme weather events to human-caused global warming and to make such determinations quickly, sometimes within days.”*

### **Human Health Impacts**

[Unexpected effects of climate change: worse food safety, more car wrecks](#)

[CNN – August 13, 2018]

*“On excessively hot days, there are more likely to be fatal car accidents and food safety problems, and police officers and government food inspectors tend to do less of their duties, according to a study.”*

### [Climate change will make hundreds of millions more people nutrient deficient](#)

[The Guardian – August 27, 2018]

*“Rising levels of carbon dioxide could make crops less nutritious and damage the health of hundreds of millions of people, research has revealed, with those living in some of the world’s poorest regions likely to be hardest hit.”*

### ***Tribal Impacts & Traditional Ecological Knowledge***

#### [Climate Change Threatens Midwest's Wild Rice, A Staple for Native Americans](#)

[NPR – August 7, 2018]

*“There have been a lot of bad years recently, as invasive species and a series of catastrophic floods have damaged rice beds. And the trend may continue, as climate change brings more frequent and severe rainstorms and warmer temperatures to the region.”*

### ***Wildlife and Ecosystem Impacts***

#### [For wildlife, climate change brings a mixed bag](#)

[Christian Science Monitor – August 1, 2018]

*“Discussions around climate change and wildlife tend to focus on winners and losers. In reality, animals’ responses cross a wide spectrum – with some showing surprising adaptability.”*

#### [Climate change could render many of Earth’s ecosystems unrecognizable](#)

[Washington Post – August 30, 2018]

*“A sweeping survey of global fossil and temperature records from the past 20,000 years suggests that Earth’s terrestrial ecosystems are at risk of another, even faster transformation unless aggressive action is taken against climate change.”*

### ***Greenhouse Gas Mitigation***

#### [California vows to 'fight this stupidity' as EPA moves to scrap clean car rules](#)

[The Guardian – August 2, 2018]

*“The Trump administration has moved to weaken US vehicle emissions standards and has set up a major confrontation with California by scrapping its ability to enact stricter pollution standards and mandate the sale of electric cars.”*

#### [Plan to power California with all renewable energy heads to Jerry Brown](#)

[Sacramento Bee – August 28, 2018]

*“The California Legislature sent a bill to the governor that would require all retail electricity to be generated from solar, wind and other renewable energy sources by 2045.”*

## **Climate Change Modeling**

### **[Most economic forecasts have a big blind spot: Climate change](#)**

[CNN – August 17, 2018]

*“And a growing body of research by economists and climate scientists shows that extreme weather will weigh on economic growth even more so in the future. But almost no mainstream economic forecasting model takes that into account, in an omission that some economists say could affect the accuracy of economic predictions going forward.”*

### **[Think Rivers Are Dangerous Now? Just Wait](#)**

[WIRED – August 20, 2018]

*“An ambitious new study in Nature Climate Change, though, takes on the task of modeling rivers’ reactions to a warming world. With their projections of flooding severity, the researchers were able to quantify possible losses of both property and human life.”*

## **Climate Change Adaptation**

### **[Cities in California inland areas must make street tree changes to adapt to future climate](#)**

[UC ANR – August 3, 2018]

*“Many common street trees now growing in the interior of California are unlikely to persist in the warmer climate expected in 2099, according to research published in the July 2018 issue of the journal Urban Forestry & Urban Greening.”*

### **[The Victims of Climate Change Are Already Here](#)**

[The Atlantic – August 22, 2018]

*“With a new global summit approaching, communities in the southern United States are calling attention to the disaster scenarios they currently face.”*

## **International Planning**

### **[The export economies that stand to lose most from climate change](#)**

[Axios – August 3, 2018]

*“As the world's climate changes, heat waves may become difficult for people to tolerate in certain parts of the world — and this could have an impact on the global economy.”*

### **[Caribbean states beg Trump to grasp climate change threat: 'War has come to us'](#)**

[The Guardian – August 7, 2018]

*“Caribbean states and territories have rounded on the Trump administration for dismantling the US’s response to climate change, warning that greenhouse gas emissions must be sharply cut to avoid hurricanes and sea level rise threatening the future of their island idylls.”*

## **Communicating Climate Change**

[To get people talking about climate change, publish your study during a hot summer](#)

[Quartz – August 7, 2018]

*“Some of the world’s most preeminent scientists have figured out it makes sense to publish global-warming studies when it’s hot outside.”*

[Driving the Climate Change Conversation to A Neighborhood Near You](#)

[Huffington Post – August 10, 2018]

*“A scientist and a teacher are on a road trip across America to talk about global warming.”*

## **BLOGS/Commentary**

[Saving Earth: Don’t Fall into Climate Change Fatalism](#)

[Huffington Post – August 1, 2018]

*“It’s too late to stop severe climate change – indeed we see it around us. But it is absolutely not too late to slow the rate of climate change.”*

[Studying Climate Change in One of the Grandest Classrooms in the World](#)

[Scientific American – August 14, 2018]

*“If I could, I’d bring politicians who doubt the reality of human-caused global change to spend a few days on the Juneau Icefield.”*

## **Additional Items of Interest**

[Europe's heat wave shows how climate change could change tourism](#)

[NBC News – August 3, 2018]

*“Scorching temperatures and extreme weather mean summer vacations may be replaced by fall vacations.”*

[Scientists Have Uncovered a Disturbing Climate Change Precedent](#)

[The Atlantic – August 6, 2018]

*“During the rise of mammals, Earth's temperatures spiked in a scary way that the planet may experience again soon.”*

[Domino-effect of climate events could move Earth into a ‘hothouse’ state](#)

[The Guardian – August 7, 2018]

*“Leading scientists warn that passing such a point would make efforts to reduce emissions increasingly futile.”*

## 2018 Is Shaping Up to Be the Fourth-Hottest Year. Yet We're Still Not Prepared for Global Warming.

[New York Times – August 9, 2018]

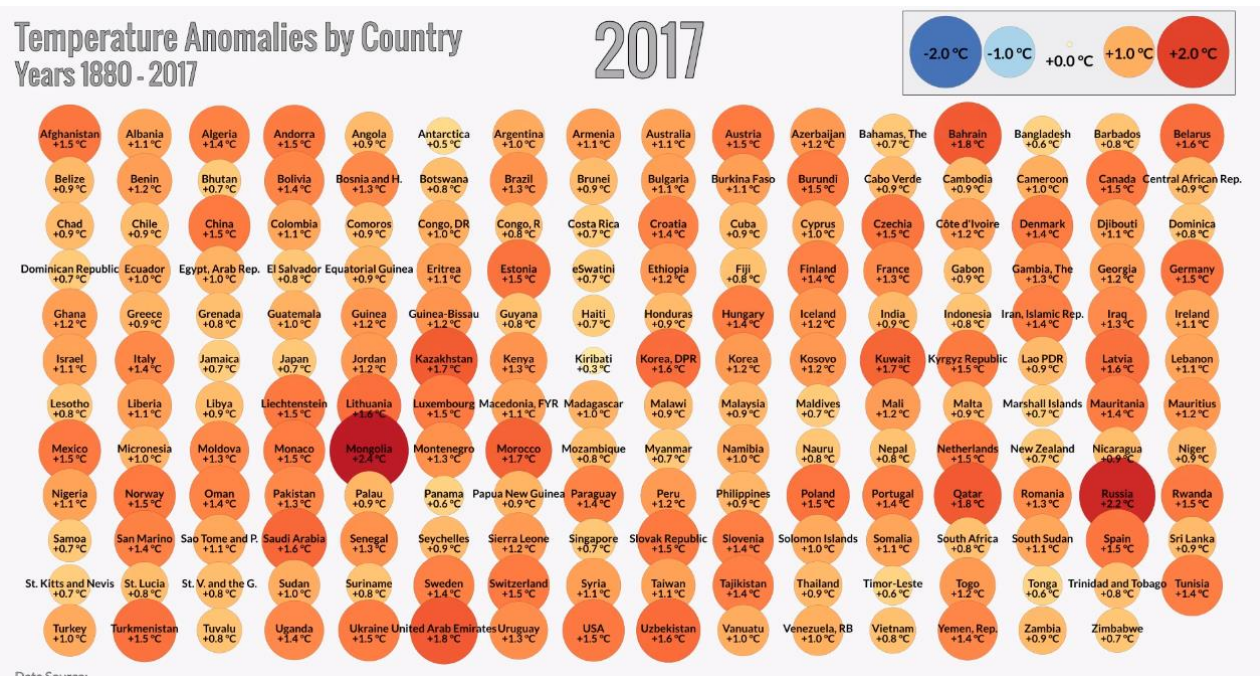
*“For many scientists, this is the year they started living climate change rather than just studying it.”*

## Climate Change Considerations Up Five-Fold Over Two Years in Money Manager Decisions, Says Report

[Forbes – August 15, 2018]

*“Climate change considerations soared more than five-fold over two years in money managers decisions, a new report by US SIF: The Forum for Sustainable and Responsible Investment revealed.”*

### **Images to Ponder**



An excellent data visualization of Temperature Anomalies by Country over the period 1880-2017 based on NASA GISTEMP data.

### Temperature Anomalies by Country 1880-2017

*\*Credit: Anti Lipponen, research scientist at Finnish Meteorological Institute\**

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